



**BILLING CODE: 3510-22-P**

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**RIN 0648-XE628**

**Endangered and Threatened Species; Take of Anadromous Fish, Rockfish, and Eulachon**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; applications for four new scientific research permits, two permit modifications, and one permit renewal.

**SUMMARY:** Notice is hereby given that NMFS has received seven scientific research permit application requests relating to Pacific salmon, steelhead, rockfish, sturgeon, and eulachon. The proposed research is intended to increase knowledge of species listed under the Endangered Species Act (ESA) and to help guide management and conservation efforts. The applications may be viewed online at: [https://apps.nmfs.noaa.gov/preview/preview\\_open\\_for\\_comment.cfm](https://apps.nmfs.noaa.gov/preview/preview_open_for_comment.cfm).

**DATES:** Comments or requests for a public hearing on the applications must be received at the appropriate address or fax number (see **ADDRESSES**) no later than 5 p.m. Pacific standard time on *[insert date 30 days after date of publication in the FEDERAL REGISTER]*.

**ADDRESSES:** Written comments on the applications should be sent to the Protected Resources Division, NMFS, 1201 NE Lloyd Blvd., Suite 1100, Portland, OR 97232-1274. Comments may also be sent via fax to 503-230-5441 or by e-mail to [nmfs.nwr.apps@noaa.gov](mailto:nmfs.nwr.apps@noaa.gov) (include the permit number in the subject line of the fax or email).

**FOR FURTHER INFORMATION CONTACT:** Rob Clapp, Portland, OR (ph.: 503-231-2314), Fax: 503-230-5441, e-mail: *Robert.Clapp@noaa.gov*). Permit application instructions are available from the address above, or online at <https://apps.nmfs.noaa.gov>.

**SUPPLEMENTARY INFORMATION:**

**Species Covered in This Notice**

The following listed species are covered in this notice:

Chinook salmon (*Oncorhynchus tshawytscha*): Threatened Puget Sound (PS); threatened California Coastal (CC).

Steelhead (*O. mykiss*): Threatened PS; threatened Northern California (NC).

Chum salmon (*O. keta*): Threatened Hood Canal Summer-run (HCS).

Coho salmon (*O. kisutch*): Threatened Southern Oregon/Northern California Coast (SONCC).

Sockeye salmon (*O. nerka*): Threatened Ozette Lake (OL).

Eulachon (*Thaleichthys pacificus*): Threatened Southern (S).

Green sturgeon (*Acipenser medirostris*): Threatened S.

Bocaccio (*Sebastes paucispinis*): Endangered Puget Sound/Georgia Basin (PS/GB).

Canary rockfish (*S. pinniger*): Threatened PS/GB.

Yelloweye rockfish (*S. ruberrimus*): Threatened PS/GB.

**Authority**

Scientific research permits are issued in accordance with section 10(a)(1)(A) of the ESA (16 U.S.C. 1531 *et seq.*) and regulations governing listed fish and wildlife permits (50 CFR parts 222-226). NMFS issues permits based on findings that such permits: (1) are applied for in good faith; (2) if granted and exercised, would not operate to the disadvantage of the listed species that

are the subject of the permit; and (3) are consistent with the purposes and policy of section 2 of the ESA. The authority to take listed species is subject to conditions set forth in the permits.

Anyone requesting a hearing on an application listed in this notice should set out the specific reasons why a hearing on that application would be appropriate (see **ADDRESSES**). Such hearings are held at the discretion of the Assistant Administrator for Fisheries, NMFS.

### **Applications Received**

#### *Permit 1586-4R*

The NMFS Northwest Fisheries Science Center (NWFSC) is seeking to renew a five-year research permit to annually take juvenile PS steelhead, HCS chum salmon, and PS/GB bocaccio and juvenile, sub-adult, and adult PS Chinook salmon. The NWFSC research may also cause them to take juvenile PS/GB canary rockfish, juvenile PS/GB yelloweye rockfish, and adult S eulachon—species for which there are currently no ESA take prohibitions. The purpose of the NWFSC study is to characterize how wild, juvenile PS Chinook salmon and various forage fish species use nearshore habitats in the oceanographic basins of the Puget Sound, the Straits of Juan de Fuca, and the San Juan Islands (Washington). The project would benefit the listed species by helping managers develop protection and restoration strategies and monitor the effects of recovery actions by determining if nearshore populations are increasing or decreasing. It would also help managers establish baseline abundance/composition metrics and genetic structures for nearshore populations throughout Puget Sound. The NWFSC proposes to capture fish using beach seines, Nordic surface trawls, lampara nets, purse seines, and hook-and-line angling. Captured fish would be transferred to live-wells, mesh pens, or aerated buckets. They would then be identified to species, counted, measured to length, weighed, checked for tags and fin clips, fin clipped for genetic analysis, and released. The NWFSC researchers would intentionally

kill a subset of the captured PS Chinook salmon: for juveniles, they would kill hatchery and natural-origin fish; for sub-adults, they would only kill listed hatchery fish that have had their adipose fins clipped. The purpose of this activity is to obtain coded-wire tags for hatchery release information, otoliths for saltwater entry information, scales for genetic analysis, tissue samples for chemistry analysis, and stomach contents for diet analysis. These analyses would help managers determine contaminant exposure levels in the listed fish and determine how that exposure relates to nearby land use. The work would also provide information on population distribution and timing. Any fish that are accidentally killed as an unintended result of the overall work would be used to replace any proposed intentional sacrifice.

#### *Permit 17062-5M*

The NWFSC is seeking to modify a five-year research permit to annually take juvenile and adult PS Chinook salmon, PS steelhead, HCS chum salmon, and PS/GB bocaccio. The NWFSC research may also cause them to take adult S eulachon and juvenile and adult PS/GB canary rockfish and PS/GB yelloweye rockfish—species for which there are currently no ESA take prohibitions. The modified permit would increase the amounts of take they are allotted and allow additional methods and procedures. Sampling would take place throughout the Puget Sound, the Strait of Juan de Fuca, and Hood Canal, Washington. The purposes of the study are to (1) determine how much genetic variation exists between coastal and PS/GB DPS populations of bocaccio, canary rockfish, and yelloweye rockfish; (2) monitor long-term survival, movement patterns, and recovery from barotrauma from a subset of ESA-listed rockfish; (3) study how the low dissolved oxygen concentrations within the Hood Canal region of Puget Sound may cause listed rockfish species to alter their patterns of movement and activity; and (4) investigate whether eelgrass bed characteristics (patch size and level of nearby urbanization) affect the

relative quality of these habitats as nursery habitat for rockfishes in the Puget Sound. The research would benefit rockfish by addressing various concerns related to the management status and eventual recovery of these species by collecting the necessary biological, genetic, habitat, and movement behavior information. The NWFSC proposes to capture fish by (1) using hook and line equipment at depths of 50–100 meters; (2) using a hand net while SCUBA diving at depths up to 40 meters; and (3) using minnow traps and Standard Monitoring Units for the recruitment of Reef Fishes (SMURFs) in or near eelgrass beds. For the hook and line fishing, captured rockfish would be slowly reeled to the surface and returned to the water via rapid submersion techniques to reduce barotrauma. For the hand netting, juvenile rockfish would be processed either at the capture site or brought to the surface before being released by rapid submersion. All captured ESA-listed rockfish would be measured, sexed, have a tissue sample taken, floy tagged, and released. A subset of these bocaccio and yelloweye rockfish would have an external acoustic transmitter attached to track movement, activity, and survivorship. If an individual of these species is captured dead or deemed nonviable, it would be retained for genetic analysis. All other fish would be immediately released at the capture site. For the minnow traps and SMURFs, they would be brought to the surface; emptied into a tub of water; and the fish would be identified by species, enumerated, and released. The researchers do not propose to kill any of the listed fish being captured, but a small number may die as an unintended result of the activities.

#### *Permit 17851-2M*

The Coastal Watershed Institute (CWI) is seeking to modify a five-year research permit to annually take juvenile PS Chinook salmon, PS steelhead, and HCS chum salmon. The CWI research may also cause them to take adult *S. eulachon*—a species for which there are currently

no ESA take prohibitions. The modified permit would increase the amounts of take they are currently allotted. Sampling would take place in the Elwha River estuary, Washington. The purpose of the research is to examine ecological function in the Elwha River nearshore environment with respect to determining how that environment supports fish species. The researchers would look at the population structures, migration timing, and life history strategies among local salmonids (Chinook, chum, sea-run cutthroat, steelhead, and bull trout) and measure ecological indices as well. The research would benefit listed species by generating information on the species' habitat needs and response to the removal of the Elwha and Glines Canyon dams. The CWI proposes to capture fish using a beach seine. Captured fish would be identified by their lowest taxonomic level. Twenty individuals from each species would be measured and released. Salmonids would be scanned for fin clips and tags. The researchers do not propose to kill any listed fish being captured, but some may die as an inadvertent result of the research.

*Permit 20047*

The University of Washington (UW) is seeking a three-year research permit to annually take juvenile PS Chinook salmon, PS steelhead, HCS chum salmon, and PS/GB bocaccio. The UW research may also cause them to take adult S eulachon and juvenile PS/GB canary rockfish and PS/GB yelloweye rockfish—species for which there are currently no ESA take prohibitions. Sampling would take place throughout the Puget Sound, Hood Canal, and Willapa Bay, Washington. The purpose of the study is to directly compare fish communities in seagrass-vegetated habitats and unvegetated tideflats at five intertidal sites where native eelgrass is found naturally interspersed with bare areas. The research would benefit listed species by evaluating their response to eelgrass habitats on Washington state tideflats and thereby help inform planning decisions regarding preserving, restoring, and monitoring selected aquatic sites. The UW

proposes to capture fish using a beach seine. Captured fish would be identified to species, counted, measured to length (first 10 individuals of each species), and released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

#### *Permit 20104*

The Pacific Shellfish Institute (PSI) is seeking a three-year research permit to annually take juvenile CC and PS Chinook salmon, NC and PS steelhead, SONCC coho salmon, HCS chum salmon, and S green sturgeon. The PSI research may also cause them to take adult S eulachon—a species for which there are currently no ESA take prohibitions. Sampling would take place in Samish Bay (Puget Sound, Washington), Willapa Bay (Washington), and Humboldt Bay (California). The purposes of the study are to (1) measure and quantify the effect of shellfish culture on seagrass and its function as habitat for fish and invertebrates; (2) determine the distribution of, and spatial relationship between, existing shellfish culture and seagrass in several Pacific Northwest estuaries; and (3) synthesize data and parameterize production functions for higher trophic level species of interest (i.e. English sole, crab, salmon) across habitat types. The research would benefit listed species by (1) increasing knowledge at a landscape scale regarding the influence aquaculture may have on estuarine habitats and (2) improving development of environmentally and economically sustainable shellfish farming practices that minimize impacts on listed species. The PSI proposes to observe/harass fish using modified fyke net/camera deployments and capture fish using Breder traps. The modified fyke net/camera deployments will be left open-ended with four wings (hourglass shape) with two cameras to identify species; no fish will be handled. For the Breder traps, fish will be identified

to species, counted, measured, and released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 20349*

The FRIENDS of the San Juans (FSJ) is seeking a five-year research permit to annually take juvenile PS Chinook salmon and PS steelhead in bays and intertidal zones around the San Juan Islands (Puget Sound, Washington). The FSJ research may also cause them to take adult S eulachon—a species for which there are currently no ESA take prohibitions. The purpose of the FSJ study is to assess fish utilization of shallow water and beach habitats before and after restoration activities. The research would benefit listed species by providing data for evaluating restoration project success. The FSJ proposes to capture fish using a beach seine. Captured fish would be identified to species, counted, measured to length (first 20 individuals of each species), and released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

*Permit 20451*

The UW is seeking a two-year research permit to annually take juvenile and adult OL sockeye salmon in Lake Ozette (northwest Washington). The purpose of the UW study is to investigate the interactions of native predators (i.e. northern pikeminnow, sculpin) and non-native predators (i.e. largemouth bass, yellow perch) with Olympic mudminnow (*Novumbra hubbsi*), a state sensitive species. The research would benefit the listed species because OL sockeye are similarly threatened by the same predators. The UW proposes to capture fish using minnow traps, hoop nets, gill nets, trammel nets, and hook and line. For OL sockeye salmon, captured fish would be handled and released. After the listed fish are released, the remaining fish would be anesthetized, fin clipped, gastric lavaged (or for northern pikeminnow, sacrificed),



and released. The researchers do not propose to kill any listed fish being captured, but a small number may die as an unintended result of the activities.

This notice is provided pursuant to section 10(c) of the ESA. NMFS will evaluate the applications, associated documents, and comments submitted to determine whether the applications meet the requirements of section 10(a) of the ESA and Federal regulations. The final permit decisions will not be made until after the end of the 30-day comment period. NMFS will publish notice of its final action in the **Federal Register**.

Dated: May 17, 2016.

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Angela Somma, Chief,  
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[FR Doc. 2016-11999 Filed: 5/19/2016 8:45 am; Publication Date: 5/20/2016]